Backward Design: Constructing American Geography Curriculum and Instruction into Practice

Cheng-Chang Tsai
Department of Applied Foreign Languages, Nan Kai University of Technology,
Associate Professor
maxtsai@nkut.edu.tw

ABSTRACT

This study is primarily concerned with adapting the backward design process to American geography curriculum and putting instruction into practice. These are not new concepts in American schools, but they are new concepts in the current Taiwan education system. To be able to use the backward design process, the designer must first decide what is essential for students to know, and then decide how the designer will know when students have achieved that goal. In doing so, designing assessment is a significant section that must occur at the beginning of the design process to give both the designer and students a clear destination for the lesson plan. Once the destination is clear, the designer is able to set up the best roadmap to get there.

Key words: the backward design process, American geography, curriculum, instruction

1. Introduction

Jackson (1992) has stated that the best adjectives used to describe curriculum is “confused,” because of a lack of clear definitions. The questions “What is curriculum? ”and “ To what should this term be applied” have a variety of different answers. In general, curriculum is referred here simply to *what* is taught to students. This extensive definition includes the intended and unintended information, skills, and attitudes that are taught to students at schools. “What is instruction?” Instruction is how the curriculum is delivered to learners (Johnson, 1967). The following paragraph will discuss relationships between curriculum and Instruction.

2. Models of the Curriculum and Instruction Relationships

As stated previously, the definitions for curriculum and instruction have shown that a relationship should exist between “what is taught” and “how it is taught.” We might think of the curriculum as plans, contents, and learning experiences, whereas we might characterize instruction as methods, the teaching actions, and implementations. Definitions of the two terms are valuable but can obscure the interdependence of these two systems. They might be viewed as combined or separate entities. The relationship between curriculum and instruction of education is not easily determined, but can be seen in several different models of this relationship. Broadly speaking, a total of four models are identified for this relationship: (1) dualistic model, (2) interlocking model, (3) concentric models, and (4) cyclical model (Oliva, 1992; Oliva, 2001).

(2.1) Dualistic Model

Curriculum is on one side and instruction is on the other and are never combined put together. Under this model the curriculum and instructional process might change without significantly affecting one another (Oliva, 1992; Oliva, 2001).

(2.2) Interlocking Model

This model clearly demonstrates the integrated relationship between curriculum and instruction. The separation of one from the other would be harmful to both (Oliva, 1992; Oliva, 2001).

(2.3) Concentric Models

Mutual dependence is the most important feature of concentric model. Two conceptions of the curriculum-instruction relationship that identify one as the subsystem of the other can be sketched. These two conceptions of the curriculum-instruction relationship both convey the idea that one of the entities occupies a superordinate position when the other is subordinate (Oliva, 1992; Oliva, 2001).

(2.4) Cyclical Model

The cyclical conception of the curriculum-instruction relationship is simplified system model that emphasizes the important element of feedback. Curriculum and instruction are separate entities with a continuing circular relationship. Curriculum has a significant influence on instruction. On the other hand, instruction has impact on curriculum (Oliva, 1992; Oliva, 2001).

As stated above, curriculum and instruction are viewed as separate but dependent concepts. There is no denying that all models have their strengths and weaknesses, but the cyclical model seems to have particular benefit because of its stress on the reciprocity between curriculum and instruction (Kliebard, 1992; Short, 1986).

3. Backward Design of Curriculum

What is backward design? It is a method of creating lessons. It was developed by Grant Wiggins and Jay McTighe (1998) and employs identifying concepts that have lasting value, listing evidence that informs an educator

that their pupils have deep understanding of the concepts and creating an assessment that adopts this learning evidence. From the assessment the teacher develops lessons that make sure all pupils will be successful in the assessment. A simple explanation of backward design is to start with the end in mind. This provides for a clearer understanding of your destination. It also means that you will know where you are going that will show you where you are now. By doing this, the steps you take will always be in the right direction (Wiggins & McTighe, 1998).

To properly practice backward design in curriculum, the educator has to begin with the desired results of a lesson. The first step for the educator is to identify the goals and objectives for the lesson. Once the goals and objectives have been identified, the educator then derives the curriculum from the evidence of learning called for by the standard and the instruction needed to equip pupils to live up to proficient levels (Wiggins & McTighe, 1998).

4. The Backward Design Process

Generally speaking, the logic of backward design suggests a planning sequence for curriculum development. This sequence has three stages in the backward design: (1) Identify desired results, (2) Determine acceptable evidence, and (3) Plan learning experiences and instruction (Wiggins & McTighe, 1998).

Stage(4.1). Identify Desired Results

In the first stage, teachers should take the following questions into “curriculum” consideration: What should learners know, understand, and be able to do? What is worthy of understanding? To what extent does the idea, topic or process represent an important idea? To what extent does the idea, topic or process exist in the heart of the discipline? To what extent does the idea, topic, or process need uncoverage? , and To what extent does the idea, topic, or process provide potential for the engaging students? Using this method, teachers can start with a clear understanding of their destination. In the long run, their steps will always be in the right direction (Wiggins & McTighe, 1998).

Stage(4.2). Determine Acceptable Evidence

In the second stage, teachers should take the following questions into “assessmelt” consideration : How can we know if our students have achieved the goals and met the standards? What can we accept as evidence of student understanding ald learning proficiency? The backward design encourages instbuctors and curriculum designers tk think like a learning assessor prior to designing specific lessons, and thus to aonsider how to judge what evidence would demonstrate that the learners have achieved the desired goals. This continuum of assessment methods includes a variety of checks of understanding, such as traditional quizzes and tests, oral questions, classroom observations, informal classroom dialogues, open-ended questions, and performance tasks and projects. “They vary in scope (from simple to complex), time frame (from short-term to long-term), setting (from decontextualized to authentic contexts), and structure (from highly structured to non-structured) (Wiggins & McTighe, 1998, p.13)”. As noted above, the designer should identify the evidence needed to validate that learning outcomes have been achieved and balance use of different kinds of assessment (e.g. quizzes/tests, performance, open-ended questions/academic prompts) (Wiggins & McTighe, 1998).

Stage(4. 3). Plan Learning Experiences and Instruction.

In the third stage, educators should take the following questions into “instruction” consideration: What knowledge and skills will students require to perform effectively and achieve learning goals? What learning activities will provide students with the required knowledge and skills? What will need to be taught, and how should it best be taught, in terms of performance goals? , and Is the overall design coherent and effective? .On the

other hand, the designer should plan instruction that supports the first two steps and keep the learning task clear and attainable. Less direct instruction and more hands-on experience provide relevance and context. This will allow students to go through the cycle of attempt, reflect, revise, try again (Wiggins & McTighe, 1998).

In conclusion, backward design is a purposeful task analysis that integrates curriculum, assessment, and instruction.

5. Elements of a Good Backward Design

Generally speaking, elements of a good backward design are composed of four dimensions: the unit design, the instructor, the learners, and the classroom environment. In the following section, we present conceptual framework and empirical practice to each of the above four elements for designer (Wiggins & McTighe, 1998).

(5.1).The Unit Design

* Uses big ideas and essential questions to clearly guide the designs, and are used along with, assessment and instruction and learning activities.

*Adapts a wide variety of forms of assessment to let pupils demonstrate their understanding in different ways.

*Uses clear attainable criteria and performance standards for instructor, peer and self-evaluations of student products and performances.

*Enables students to revisit and rethink important ideas to deepen their enduring understanding.

*Incorporates a variety of resources. The textbook is only one resource among many teaching tools.

(5.2).The Instructor

*Informs learners of a big ideas and essential questions, performance requirement, and evaluative criteria at the beginning of the unit.

*Holds learners' interest when they explore big ideas and essential questions.

*Adapts different strategies to promote deeper understanding of learning.

*Facilitates learners' active construction of meaning (instead of simply direct teaching).

*Promotes opportunities for learners to incorporate the six facets of understanding—to explain, interpret, apply, shift perspective, empathize, and self-assess.

*Uses information from ongoing assessments and evaluations as feedback to adjust instruction.

*Uses a variety of teaching resources (beyond the textbook) to promote understanding.

(5.3).The Learners

*Are able to describe the main goal and performance requirements of the unit.

*Are capable of describing the criteria by which their work will be evaluated.

*Are engaged in learning activities that help them learn the big ideas and answer the essential questions.

*Are engaged in activities that promote explanation, interpretation, application, perspective taking, empathy, and self- assessment (the six facets)

*Are involved in self-or peer-assessment based on established criteria and performance standards.

*Use the established criteria or rubric to adjust and revise their work.

(5.4).In the Classroom Environment

*The big ideas and essential questions are central to the learning of students, the classroom activity.

*All students and their ideas are treated with dignity and respect.

6. Application of Backward Design to an American Geography Lesson Plan

In the following section, we will provide the instructor teaching high school level students with a lesson plan of states of America using the backward design process.

Stage (6.1). Identify Desired Results

Established Goals: Students gain knowledge of the geography aspects of selected regions.

*Explain variation of geography patterns within a region.

*Demonstrate an understanding of the role of cultures in influencing a region.

*Recognize the art, literature, stories, or other culturally related activities of a region.

What understandings are desired?

Students will understand that…

*America is composed of fifty states.

*Each state has unique cultural centers and festivals.

*Each state has different geography.

What essential questions will be considered?

*What are the names and locations of the American states?

*What are the similarities and differences between the festivals of each state?

*What type of cultural sights can be seen in each state?

What main knowledge and skills will the students acquire as a result of this unit?

Students will know…

*the names/locations of states.

*the main cultural areas of the states.

*the main festival celebrated.

Students will be able to…

*create an American map.

*create a calendar of the main holidays.

Stage (6.2). Determine Acceptable Evidence

What evidence will demonstrate the students' understanding?

*They will create a map of America, its states, major cities and sights.

*****They will make a brochure or Internet site of the state of their choice using information from the Internet

Other Evidence (quizzes, tests, observation, dialogues):

*Take a test on the states in America.

*Create a brochure or Internet site or power point on the sights in America.

Student Self-Assessment and Reflection:

*How did this lesson help you understand the make up of America?

Stage (6. 3). Plan Learning Experiences and Instruction.

*Students will receive a blank map of America and will fill in the states, capitals and major geographical features from a map.

*Students will watch a documentary on America and its features.

*The teacher will show Internet sites and note worthy material in general about America.

*Students will pick a state of America.

*Students will do research on that state.

*The research needs to include regional geography, tourist attractions, history, culture, and holidays and any other interesting information pertaining to that state.

7. Conclusion

Backward Curriculum Design is one of various models of instructional design, but it is a model that promotes the new idea for curriculum, assessment, and instruction design engaging learners in finding enduring understanding through questioning and giving them a reason for participating in the learning process. Also very vital to the process of this model is determining the forms of assessment once the essential questions or big ideas are chosen. By asking how the questions will be answered, the assessment is developed, both formative and summative. Both the essential questions and the assessment guide are designed through lesson development. Backward design is used in a constructive way-one that sets the teacher as a facilitator and a guide. The learner becomes a builder of knowledge through learning experience and interaction with peers, teachers. This learning experience begins with the end in mind. Hopefully, this will make a positive change in the way teachers teach and students learn in current Taiwan schools.

8. References

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程序倒推式設計:建構美國地理課程與教學之應用

蔡正章
南開科技大學應用外語系副教授
maxtsai@nkut.edu.tw

摘要

本文主旨在說明程序倒推式設計如何實際應用於美國地理課程與教學。課程與教學採用程序倒推式設計，這在美國的教育界已經普遍被使用，但現今台灣，這樣的概念和做法屬於比較新的概念，尚並未普及。程序倒推式設計的理念是:先了解學生對於學習內容的認識，再依據學生的程度來設計課程。設計者首先要確定學生們所需了解的是什麼，再決定何時讓學生達到學習目標。於是，一開始的測驗設計就是重要的學習起點。測驗的設計能讓設計者和學生對於課程計畫所欲達到的目的地有明確的共識，一旦目標確立之後，設計者就能規畫一個直達目地的路徑。

關鍵字：程序倒推式設計、美國地理、課程、教學